

## SEQUENCE LISTING



<110> Japan Science and Technology Agency  
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<120> GENETIC MARKERS LINKED TO GENE LOCUS INVOLVED IN BARLEY RESISTANCE  
TO YELLOW MOSAIC DISEASE AND USE THEREOF

<130> 1035-664 / A181-10PCT

<140> US 10/594,250  
<141> 2008-06-24

<150> JP 2004-090644  
<151> 2004-03-25

<150> JP 2004-342737  
<151> 2004-11-26

<160> 62

<170> PatentIn Ver. 2.1

<210> 1  
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<220>  
<223> Description of Artificial Sequence: primer

<400> 1  
cttggccttg atcttctgtct

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<210> 2  
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<220>  
<223> Description of Artificial Sequence: primer

<400> 2  
gaccgtgtca ggaaagcaat

20

<210> 3  
<211> 20  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: primer

<400> 3

tcttcctgg gttggtaac	20
<210> 4	
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<212> DNA	
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<223> Description of Artificial Sequence: primer	
<400> 4	
gcagcttttg agttcgttcc	20
<210> 5	
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<220>	
<223> Description of Artificial Sequence: primer	
<400> 5	
ctgtttggat gactgcgaga	20
<210> 6	
<211> 20	
<212> DNA	
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<223> Description of Artificial Sequence: primer	
<400> 6	
attacgcaac ctgatggagc	20
<210> 7	
<211> 20	
<212> DNA	
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<223> Description of Artificial Sequence: primer	
<400> 7	
acccccggaag ctaagatgtat	20
<210> 8	
<211> 20	
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<220>	

<223> Description of Artificial Sequence: primer

<400> 8

agtccgaaaca tgccgtacac

20

<210> 9

<211> 21

<212> DNA

<213> Hordeum vulgare

<400> 9

atcttctgca ggcacttgtc g

21

<210> 10

<211> 21

<212> DNA

<213> Hordeum vulgare

<400> 10

atcttctgca agcacttgtc g

21

<210> 11

<211> 21

<212> DNA

<213> Hordeum vulgare

<400> 11

tgcgtggcc gtgcacgatg a

21

<210> 12

<211> 21

<212> DNA

<213> Hordeum vulgare

<400> 12

tgcgtggcc atgcacgatg a

21

<210> 13

<211> 21

<212> DNA

<213> Hordeum vulgare

<400> 13

attactcagc tacacaccta t

21

<210> 14

<211> 21

<212> DNA

<213> Hordeum vulgare

<400> 14

attactcagc cacacacaccta t

21

<210> 15  
<211> 688  
<212> DNA  
<213> Hordeum vulgare

<400> 15  
gcagtaagt gaggacaaaa aggaatactg ggattagata gaatgtacg acattctgc 60  
gggtgggtg gtataagt tagtatacaga cgaggaccg tctcctggtc ctcagcttg 120  
ggtcttctct accttggcct tgcattctg ctcgaggacc gccttctccg tgctgaggtt 180  
gaacatcctg ttgaggcggt gcatgttgc gacgtctcg tccagggtgc ggctgtcgct 240  
gccatcgcat ctcaggtgct gcaacgggcc gtggaggagc ttgttcaacta tgcccgtgct 300  
cagctctcg atagacccctc tgcattctt gttgagggtt tcttccccga tcttctgcag 360  
gcacttgcg agctcgatg ccctgatcct gtcggcatac gacctcagct ttttgcgtt 420  
cgggaccgtc tccagcgagt ccctccacgc ctcgaaccgc ttcagttctt gggtgatgat 480  
tgcttggcc tccattgtt tccgtacacg gtcttcctt ttggcttcca ccacctctt 540  
caagtcgtca acattgtata cccgtgcgtg ctccacttga gataggcagg caccgacgtt 600  
ccttggacg gatatgtcga cgaaaagccg aacaccaccc atggcaagag agataggagg 660  
aagcgccctcc gcatgcccct tggtaat 688

<210> 16  
<211> 645  
<212> DNA  
<213> Hordeum vulgare

<400> 16  
agatgacagc taggcccgtga gcaggggaca catgaatatt tcccgctcac taccctatct 60  
atactatcca gatatctacac atgaatattt ccagagattt tgctattatg atactgcgt 120  
caagaactgt ctgcaaaatc aagaaacact atttgatta cgtccctatg atatactgct 180  
agttcctata tatcttcctt ggggttggta acttgagctt ctgactgact gcttggtagg 240  
ttcatctccg tggatctctg gacttgaagg tggatggaaag ggcatgcctc cagagaagaa 300  
aagcgttgc tggatctacc aaacttgctt cgttgacagc ccaagggcag gtcccccacgt 360  
gtcgtcgctt tattttcctt cttttcataa acaccttcaa actttttca accacgcgt 420  
gcaactggaa gtaatgattt tacaggctct tctttatcc aaatcacacg caacgtcaca 480  
aatactaacc ttgacatgcc ttggactggc agtggatgtt ccattccaccc tcgccttagtt 540  
gcacatgtata aagatacggt ggagcttggt ggcatttgacc gcataaggaa cgaactcaaa 600  
agctgcttaa tgaggacaag acatctaattt aagaacaattt gaaga 645

<210> 17  
<211> 696  
<212> DNA  
<213> Hordeum vulgare

<220>  
<221> UNSURE  
<222> (10),(24),(30)  
<223> n is a or g or t or c

<400> 17  
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cataaactcca atgtgatattt agtagtcacg tacaacatga tctaatttattt attatggcgc 120  
catccaattt ttagcgaccg acgagatgtt ttcatcggtt tttgttagtaa cacaacacag 180  
agtagactgt ttggatgtt gcgagaagta agccaaatgc agctgcccattt agcccaacgg 240

caagccatgg gttcctcaag tacctctgcc tttagccaggc agtccaccc cggggggttgc 300  
tctggAACCG cttctccAGC ttcttgcATG tctccCGTAG gtagttgcAG ccggggTCAT 360  
cagggtcaaa cataatcccc ttgcaaaAGGT cgacgaAGCA tttggccACC tcttcgttGT 420  
tgccgtggcc gtgcacGATG acgcctctcc tcaccaAGAG ctccacgtcc ttctgtggTC 480  
aggccatctg ggacatGAAC acgcAGTATG ccgtgacATG gctccccACC gtctccCGGT 540  
tcctctgtcAG cagctccATC agttgcgtA atagccGCCA cgtctcggcG tcgatgtCCA 600  
ggacggggat ctccagcgtA ccGCCACCcG cgtccAGCTT cacgtcgagg atgcagcggA 660  
tgacaccctt ctgcgtcatG gccccgggCG ttgaac 696

<210> 18  
<211> 738  
<212> DNA  
<213> Hordeum vulgare

<400> 18  
aatcttagca ttcctgttct ctatTTacga attacctaAT gtaatgcAT gagcAGTAGt 60  
cacaggataa cttccgatac ctccaAGCAG ttgcaactca taagatgaaa ttatttacAA 120  
agagtggcca tgactaccta ccctacCTGc tatctacAGt ttttttggA tatactattc 180  
acagttggtg tcgaagAGAC gtaaccaATC taggaACATA catgggcaAG gaatgACCC 240  
ggaagctaag atgatgaatt ggaagaggAG tcatgtacAC aacctactta tagactatAT 300  
ataattttAG ggccatttct caaccaACAC ctattgaca agggcaAGAA ttttactTCG 360  
tattgatgaa acagatATCA caattcACCA ttacggcATT acttacCTAG ttgatGCCA 420  
agaaacttaa taatATCTAA gaaactATCC acctaAGGAA tgaccAGAGA agctgAGATG 480  
atgaatttGGA aggAGTCAAA tacAGAAACCC atttttAGAT tataTGtACA aaattttAGG 540  
gtcattactc agccacACAC ctatTTgAAA acaACAGGAA gaattttACT tagtcatGAT 600  
gaaacAGATT tcttttaACA aataAGAAATT cgactactCC tttagatATCT aaAGATGGAT 660  
gacGtagCCA gataccATGT agAACACtGA aaaggcgtGT accgcATGTT ccgactGAAG 720  
actatcaATC atggtaAG 738

<210> 19  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 19  
acgatcgatC aaaaggacca 20

<210> 20  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 20  
aatccgacga aatcaacgag 20

<210> 21  
<211> 20

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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 21
ctcgatcatc agcgacttca                                20

<210> 22
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 22
gaagaggcac cttctgcaac                                20

<210> 23
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 23
aatgtgcaca ccaagggttga                                20

<210> 24
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 24
agacaacaac cgcctgtacc                                20

<210> 25
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 25
gatgagtcct gagtaaacc                                19

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<210> 26  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 26  
gactgcgtac caattcacg 19

<210> 27  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 27  
tccagccgaa caatttcttg 20

<210> 28  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 28  
agtactccga caccacgtcc 20

<210> 29  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 29  
gatgagtcct gagtaaatt 19

<210> 30  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 30	
gactgcgtac caattcacy	19
<210> 31	
<211> 19	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: primer	
<400> 31	
gatgagtcct gagtaaata	19
<210> 32	
<211> 19	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: primer	
<400> 32	
gactgcgtac caattcgga	19
<210> 33	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
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<223> Description of Artificial Sequence: primer	
<400> 33	
atggacccaa caagtggaag	20
<210> 34	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: primer	
<400> 34	
aggaagactt tggaggccat	20
<210> 35	
<211> 19	
<212> DNA	
<213> Artificial Sequence	

<220>  
<223> Description of Artificial Sequence: primer

<400> 35  
gatgagtcct gagtaatgg 19

<210> 36  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 36  
gactgcgtac caattcgg 19

<210> 37  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 37  
gatgagtcct gagtaacaa 19

<210> 38  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 38  
gactgcgtac caattcgg 19

<210> 39  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 39  
gatgagtcct gagtaaacg 19

<210> 40  
<211> 19

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 40  
gactgcgtac caattccat 19

<210> 41  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 41  
gatgagtcct gagtaaatg 19

<210> 42  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 42  
gactgcgtac caattcata 19

<210> 43  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 43  
gatgagtcct gagtaaacg 19

<210> 44  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 44  
gactgcgtac caattcgat 19

<210> 45  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 45  
gatgagtcct gagtaaacg 19

<210> 46  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 46  
gactgcgtac caattcgg 19

<210> 47  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 47  
gacgatgagt cctgag 16

<210> 48  
<211> 14  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 48  
tactcaggac tcat 14

<210> 49  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 49	
ctcgtagact gcgtacc	17
<210> 50	
<211> 18	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: primer	
<400> 50	
aattggtagc cagtctac	18
<210> 51	
<211> 16	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: primer	
<400> 51	
gatgagtcct gagtaa	16
<210> 52	
<211> 16	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: primer	
<400> 52	
gactgcgtac caattc	16
<210> 53	
<211> 664	
<212> DNA	
<213> Hordeum vulgare	
<220>	
<221> UNSURE	
<222> (10)	
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<400> 53	
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ataaggactt ggtattcact aatccatgaa aatagttatt attcaaaaca cagggagatc 120	
gcaaggaggt ctgatctgaa aaggccctag aagccattca gtaaccacga gagtaacaag 180	
ttgcagaaag ctagaaacaa ctggataact taatcccttg acattcaaaa acatgaagaa 240	
tgtcaaaaatg atgattcata acacgatcga tcaaaaaggac cagtcatctg gaagaactct 300	
tgttagtcgt tcagtaacgg cgtggaggga accggccatc gaccccccacatggacact 360	

cgtaagccat gtgaccacga ccaccacagt tggcagat catgaaggcg ccacccatgc 420  
agtacggct catatggcca acctgggtgc agggccggca gaccatgtca ctgtagccac 480  
cacggaaagag agcaccggccg ccaccacgga agggagcatc gccaccacgg aacagagcat 540  
cgccgcccacg gaacagagcg tcaccgcccac ggaacagagc gtcaccacca cggaagggag 600  
gaggcccacc cctctcggtt atttcgtcgg atttggggca ttgacgggccc aaatgcctg 660  
caac 664

<210> 54  
<211> 545  
<212> DNA  
<213> Hordeum vulgare

<400> 54  
cagcataataatctcgtaaccc atagcaggca tcaggtagaa gtattactgt atgcaggggg 60  
gacatcatttg tgataaatca taaggttagt aattttccat aactcaaaat tttgatctaa 120  
gcttctatct ttctctctct ctctctaata ggtgcctcga tcattcagcga cttcaggact 180  
tgctcctcgt aacaaaccag ctgagtcttg acgaaacaat ccagaaagtc agcagcaagg 240  
aagcaagccc tgggtcttc aaaaggcaat cgaccaatct tcttgtgtgg cctcagtgg 300  
ggtctgttct actccgcctt cttgggtccgg aagttcgacc tcattgacga aaccttttc 360  
ttgcactgca ccactgtttt accagggaca gcagtagcta ctcgctccca tctttgggtt 420  
gcatccttgg gaaatgcctt caaagcttga acaagggccca gcacctgagc ctctgaccag 480  
gcatctggat ctgtgcaga aggtgcctct tcggggacag gatcagcacc agtttctca 540  
ttggc 545

<210> 55  
<211> 21  
<212> DNA  
<213> Hordeum vulgare

<400> 55  
cttatgtgat cataataactg c

21

<210> 56  
<211> 21  
<212> DNA  
<213> Hordeum vulgare

<400> 56  
cttatgtgat aataatactg c

21

<210> 57  
<211> 514  
<212> DNA  
<213> Hordeum vulgare

<400> 57  
ttacaggagg gaacgcattc ttgttatgtt tagaagaata tatctaagac atgttacaaa 60  
acaacaatgt gcacaccaag gttgacagg acacggctga cagctgttac aactcccaga 120  
agaatgggtt ggctttaca aagaagaaaa aaaatgtca aaaatggcg tctccctccg 180  
cagtgtatcca agttcccaag ggcagcttct taggggagcc ccttagatgca aatggatccg 240  
ggcatccccg ccaagcgaac ttctttgtt cgctggaaag aagcagcctt ccacccgtat 300  
catttacttg gcaattctac atccgtaaacttcatc tatacagccg gaatttttag 360  
aaggacgagt gagcagcaat acagacatac ggagatggca accccggcga taaaattctg 420

gtacaggcgg ttgttgtctc tactggaaat gaaggctgcc ctcagcacgt ttgtgatctc 480  
aaatactcggtatgacagca aaagatagat tgat 514

<210> 58  
<211> 21  
<212> DNA  
<213> *Hordeum vulgare*

<400> 58  
agccttccac tggtatcatt t

21

<210> 59  
<211> 21  
<212> DNA  
<213> *Hordeum vulgare*

<400> 59  
agccttccac cggtatcatt t

21

<210> 60  
<211> 540  
<212> DNA  
<213> *Hordeum vulgare*

<220>  
<221> UNSURE  
<222> (2)  
<223> n is a or g or t or c

<400> 60  
gnttaaatttgcgagattaa catttacatg aaaaatgatg gagatgatat tgcttgagc 60  
ttgaccgaat ggacccaaca agtggaaaggc attctatatg aattacagtt atagctccat 120  
gacgttctac agtactatga cattacatcc atgatagcta attgtacaaa agagtgaatg 180  
aaatgaacta cgaaaatcca gcatcatagt tctgcagtcg ggcttctcag aagtgagcca 240  
agctgtatac tagagtccat gaaagcagga aaagggtgaa cgaggcaaaag agcccctcct 300  
gaagtagggc ggcattggcct ccaaagtctt cctcatcaat cttcagcaga tgtgcatagt 360  
acaaaatgaac tattacggtg gaaatagtaa agaataggc gatccagaag gcggccacg 420  
gggggacggc gccccagagc aggccgcagg cgagccccac cgcctgccgg atccagtgca 480  
ccgcgtccag cagctggtcc ttgtccaagg acgcgtcggg gtcgaggtac cgggcgagcc 540

<210> 61  
<211> 21  
<212> DNA  
<213> *Hordeum vulgare*

<400> 61  
tttatgtgcc tgtagcggtt g

21

<210> 62  
<211> 21  
<212> DNA  
<213> *Hordeum vulgare*

<400> 62  
tttatgtgcc ggttagcggtt g

21